

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SD2353

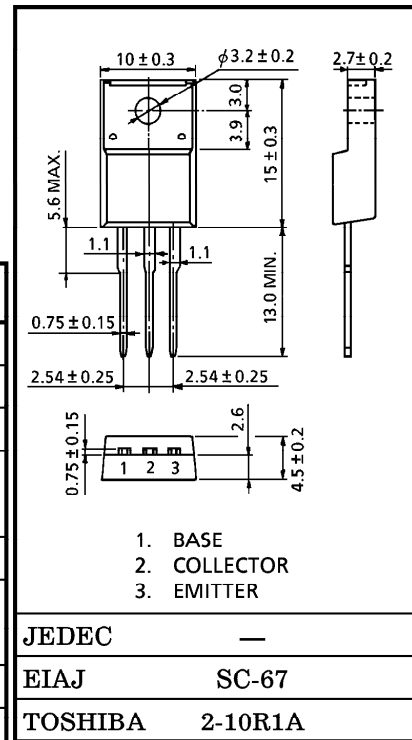
POWER AMPLIFIER APPLICATIONS

Unit in mm

- High DC Current Gain : $h_{FE} = 800 \sim 3200$
- Low Collector Saturation Voltage : $V_{CE(sat)} = 0.4V$ (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|-----------|---------|------|
| Collector-Base Voltage | | V_{CBO} | 60 | V |
| Collector-Emitter Voltage | | V_{CEO} | 60 | V |
| Emitter-Base Voltage | | V_{EBO} | 7 | V |
| Collector Current | DC | I_C | 3 | A |
| | Pulse | I_{CP} | 6 | |
| Base Current | | I_B | 0.6 | A |
| Collector Power Dissipation | Ta = 25°C | P_C | 2 | W |
| | Tc = 25°C | | 25 | |
| Junction Temperature | | T_j | 150 | °C |
| Storage Temperature Range | | T_{stg} | -55~150 | °C |

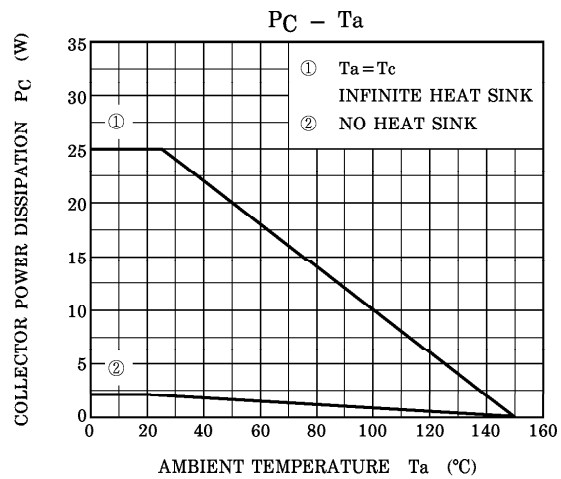
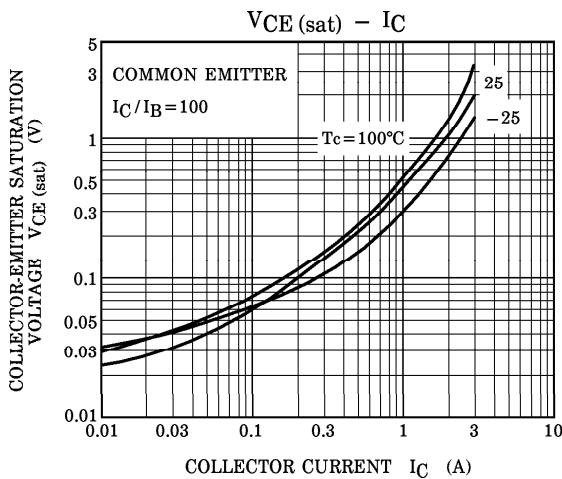
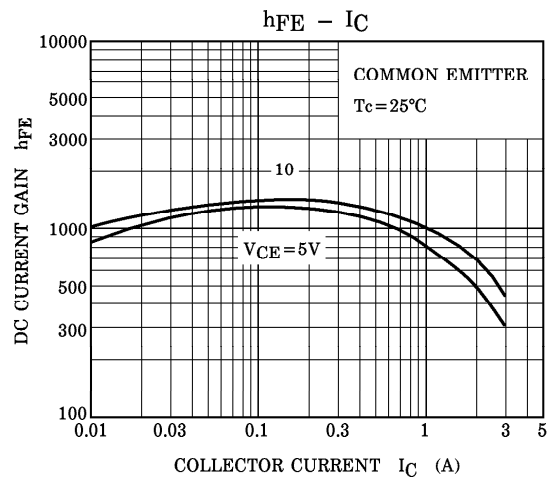
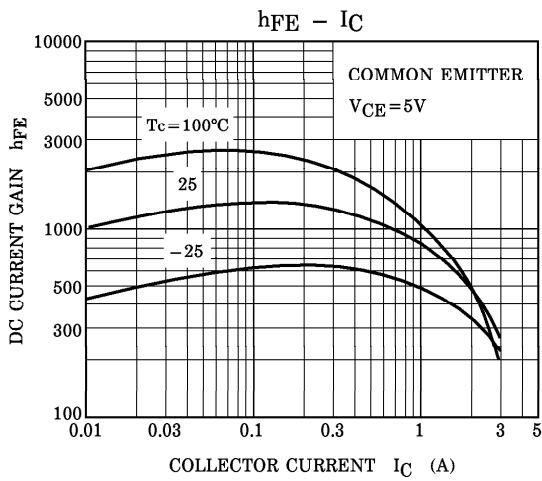
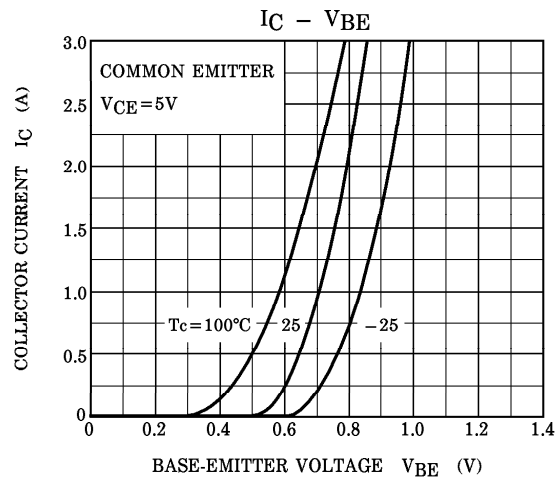
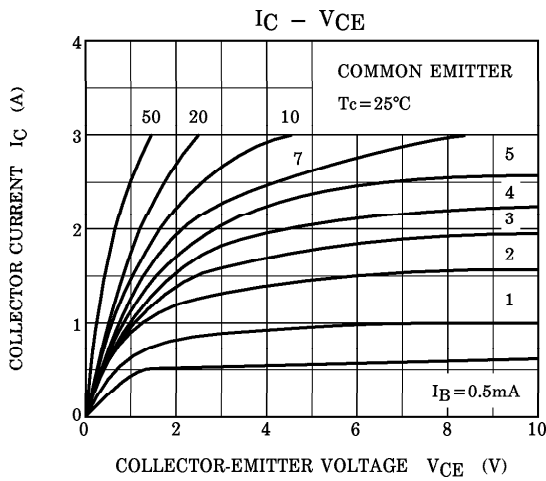


Weight : 1.7g (Typ.)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|-----------------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = 60V, I_E = 0$ | — | — | 100 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = 6V, I_C = 0$ | — | — | 100 | μA |
| Collector-Emitter Breakdown Voltage | V_{CEO} | $I_C = 50mA, I_B = 0$ | 60 | — | — | V |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE} = 5V, I_C = 0.2A$ | 800 | — | 3200 | |
| | $h_{FE(2)}$ | $V_{CE} = 5V, I_C = 1.5A$ | 350 | — | — | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 1A, I_B = 10mA$ | — | 0.4 | 1.0 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = 5V, I_C = 0.5A$ | — | 0.7 | 1.0 | V |
| Transition Frequency | f_T | $V_{CE} = 5V, I_C = 0.5A$ | — | 18 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | — | 42 | — | pF |

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